Roll No. ..... Total Pages: 02

6253

M.Sc. (IT) Ist SEMESTER EXAMINATION, 2019

Paper – III

DATA STRUCTURE

Time: Three Hours

Maximum Marks: 80

PART – A (खण्ड – अ) *[Marks: 20]*

Answer all questions (50 words each).

All questions carry equal marks.

सभी प्रश्न अनिवार्य हैं। प्रत्येक प्रश्न का उत्तर 50 शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

PART – B (खण्ड – ब) *[Marks: 40]*

Answer five questions (250 words each).

Selecting one from each unit. All questions carry equal marks.

*प्रत्येक इकाई से **एक–एक** प्रश्न चुनते हुए, कुल पाँच प्रश्न कीजिए।*

प्रत्येक प्रश्न का उत्तर 250 शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

PART – C (खण्ड – स) *[Marks: 20]*

Answer any two questions (300 words each).

All questions carry equal marks.

*कोई **दो प्रश्न** कीजिए। प्रत्येक प्रश्न का उत्तर 300 शब्दों से अधिक न हो।*

सभी प्रश्नों के अंक समान हैं।

PART – A

Q.1 (i) What is rate of growth?
(ii) What is a Pointer?
(iii) What is a compaction?
(iv) What is the use of stack and queues?
(v) What are binary trees?
(vi) What is decision tree?
(vii) What is null graph?
(viii) What is a string?
(ix) Define bubble sort.
(x) Define symbol table.

PART – B

UNIT –I

Q.2 Explain double linked list.
Q.3 Explain data abstraction & abstract data type.

UNIT –II

Q.4 Explain boundary tag method.
Q.5 Explain recursion.

UNIT –III

Q.6 Explain tree traversal algorithms.
Q.7 Explain threaded tree & its advantages.

UNIT –IV

Q.8 Explain graph traversal algorithm.
Q.9 Explain strings & their features.

UNIT –V

Q.10 Differentiate between merge & quick sort.
Q.11 Explain decision table with suitable examples.

PART – C

Q.12 Explain arrays in detail.
Q.13 Explain stack and queue.
Q.14 Explain game trees and expression parsing?
Q.15 Explain Boyer Moore and Brute force strategies.
Q.16 Explain sorting in detail.